



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/730,614
Source: FWO
Date Processed by STIC: 8/4/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

~~TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER~~
~~VERSION 4.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND~~
~~TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:~~

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - cPAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box-1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04):
U.S. Patent and Trademark Office, 220 20th Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202



IFWO

RAW SEQUENCE LISTING

DATE: 08/04/2004

PATENT APPLICATION: US/10/730,614

TIME: 11:54:23

Input Set : A:\9_263 seq list 07.26.04.ST25.txt

Output Set: N:\CRF4\08042004\J730614.raw

pp 2-3

Does Not Comply
Corrected Diskette Needed

Does Not Comply
Corrected Diskette Needed

```

3 <110> APPLICANT: Boehringer Ingelheim Pharmaceuticals, Inc.
4      LI, Jun
5      LI, Xiang
6      YANG, Jianfei
7      MARCU, Kenneth
8
9 <120> TITLE OF INVENTION: Methods for Modulating IKK ALPHA Activity
10
11 <130> FILE REFERENCE: 9/263
12
13 <140> CURRENT APPLICATION NUMBER: US 10/730,614
14 <141> CURRENT FILING DATE: 2003-12-08
15
16 <150> PRIOR APPLICATION NUMBER: 60/431,825
17 <151> PRIOR FILING DATE: 2002-12-09
18
19 <160> NUMBER OF SEQ ID NOS: 11
20
21 <170> SOFTWARE: PatentIn version 3.2
22
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 2238
25 <212> TYPE: DNA
26 <213> ORGANISM: Homo sapiens
27
28 <400> SEQUENCE: 1
29 atggagcggc ccccggggct gcggccgggc gcgggaggat gcgggagcgg      60
30 ctgggcaccg gcggcttcgg gaacgtctgt ctgtaccagc atcggggaact tgatctcaaa      120
31 atagcaatta agtcttgcg cctagagcta agtaccaaaa acagagaacg atggtgccat      180
32 gaaatccaga ttatgaagaa gttgaaccat gccaatgttg taaaggcctg tgatgttcc      240
33 gaagaattga atattttgat tcatgatgtg cctcttctag caatggaata ctgttctgga      300
34 ggagatctcc gaaagctgct caacaaacca gaaaattgtt gtggacttaa agaaagccag      360
35 atactttctt tactaagtga tatagggtct gggattcgat atttgcatga aaacaaaatt      420
36 atacatcgag atctaaaacc tgaaaacata gttcttcagg atgttggtgg aaagataata      480
37 cataaaataa ttgatctggg atatgccaaa gatgttgatc aaggaagtct gtgtacatct      540
38 tttgtgggaa cactgcagta tctggcccca gagctctttg agaataagcc ttacacagcc      600
39 actgttgatt attggagctt tgggaccatg gtatttgaat gtattgctgg atataggcct      660
40 tttttgcatc atctgcagcc atttacctgg catgagaaga ttaagaagaa ggatccaaag      720
41 tgtatatttg catgtgaaga gatgtcagga gaagttcggt ttagtagcca tttacctcaa      780
42 ccaaatagcc tttgtagttt aatagtagaa cccatggaaa actggctaca gttgatgttg      840
43 aattgggacc ctgcagcagag aggaggacct gttgacctta ctttgaagca gccaatagat      900
44 tttgtattaa tggatcacat tttgaatttg aagatagtac acatcctaaa tatgacttct      960
45 gcaaagataa tttcttttct gttaccacct gatgaaagtc ttcattcact acagtctcgt      1020
46 attgagcgtg aaactggaat aaatactggt tctcaagaac ttctttcaga gacaggaatt      1080
47 tctctggatc ctgggaaacc agcctctcaa tgtgttctag atggagttag aggctgtgat      1140
48 agctatattg tttattttgt tgataaaagt aaaactgtat atgaagggcc atttgcttcc      1200
49 agaagtttat ctgattgtgt aaattatatt gtacaggaca gcaaaatata gcttccaatt      1260
50 atacagctgc gtaaagtgtg ggctgaagca gtgcactatg tgtctggact aaaagaagac      1320
51 tatagcaggc tctttcaggg acaaagggca gcaatgttaa gtcttcttag atataatgct      1380
52 aacttaacaa aaatgaagaa cactttgatc tcagcatcac aacaactgaa agctaaattg      1440
53 gagttttttc acaaaagcat tcagcttgac ttggagagat acagcgagca gatgacgtat      1500

```

RAW SEQUENCE LISTING

DATE: 08/04/2004

PATENT APPLICATION: US/10/730,614

TIME: 11:54:23

Input Set : A:\9_263 seq list 07.26.04.ST25.txt

Output Set: N:\CRF4\08042004\J730614.raw

```

79 gggatatctt cagaaaaaat gctaaaagca tggaaagaaa tggaagaaaa ggccatccac 1560
81 tatgctgagg ttggtgtcat tggatacctg gaggatcaga ttatgtcttt gcatgctgaa 1620
83 atcatggagc tacagaagag cccctatgga agacgtcagg gagacttgat ggaatctctg 1680
85 gaacagcgtg ccattgatct atataagcag ttaaaacaca gaccttcaga tcaactcctac 1740
87 agtgacagca cagagatggg gaaaatcatt gtgcacactg tgcagagtca ggaccgtgtg 1800
89 ctcaaggagc tgttttgtca tttgagcaag ttgttgggct gtaagcagaa gattattgat 1860
91 ctactcccta aggtggaagt ggccctcagt aatatcaaag aagctgacaa tactgtcatg 1920
93 ttcatgcagg gaaaaaggca gaaagaaata tggcatctcc ttaaaattgc ctgtacacag 1980
95 agttctgccc ggtcccttgt aggatccagt ctagaagggt cagtaacccc tcagacatca 2040
97 gcatggctgc ccccgacttc agcagaacat gatcattctc tgtcatgtgt ggtaactcct 2100
99 caagatgggg agacttcagc acaaatgata gaagaaaatt tgaactgect tggccattta 2160
101 agcactatta ttcatgaggg aaatgaggaa cagggcaata gtatgatgaa tcttgattgg. 2220
103 agttgggttaa cagaatga 2238

```

106 <210> SEQ ID NO: 2

107 <211> LENGTH: 21

108 <212> TYPE: RNA

109 <213> ORGANISM: Homo sapiens

112 <220> FEATURE:

113 <221> NAME/KEY: misc_feature

114 <222> LOCATION: (20)..(21)

115 <223> OTHER INFORMATION: Any "N" is a (2'-deoxy)thymidine

117 <400> SEQUENCE: 2

W--> 118 gcagugcacu augugucugn n

121 <210> SEQ ID NO: 3

122 <211> LENGTH: 21

123 <212> TYPE: RNA

124 <213> ORGANISM: Homo sapiens

127 <220> FEATURE:

128 <221> NAME/KEY: misc_feature

129 <222> LOCATION: (20)..(21)

130 <223> OTHER INFORMATION: Any "N" is a (2'-deoxy)thymidine

132 <400> SEQUENCE: 3

W--> 133 gucuguguau cagcugacgn n

136 <210> SEQ ID NO: 4

137 <211> LENGTH: 21

138 <212> TYPE: RNA

139 <213> ORGANISM: Homo sapiens

142 <220> FEATURE:

143 <221> NAME/KEY: misc_feature

144 <222> LOCATION: (20)..(21)

145 <223> OTHER INFORMATION: Any N is a (2'-deoxy)thymidine

147 <400> SEQUENCE: 4

W--> 148 cacugcagua ucuggcccn n

151 <210> SEQ ID NO: 5

152 <211> LENGTH: 21

153 <212> TYPE: RNA

154 <213> ORGANISM: Homo sapiens

157 <220> FEATURE:

158 <221> NAME/KEY: misc_feature

For a combined DNA/RNA sequence, please use a <2127 DNA>, and explain in <2207-2237> section

no t's allowed in an RNA sequence

(even if they are modified, or if "n" is representing them)

same error

same

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/730,614

DATE: 08/04/2004

TIME: 11:54:23

Input Set : A:\9_263 seq list 07.26.04.ST25.txt

Output Set: N:\CRF4\08042004\J730614.raw

159 <222> LOCATION: (20)..(21)

160 <223> OTHER INFORMATION: any "n" is a (2'-deoxy)thymidine

162 <400> SEQUENCE: 5

W--> 163 uugggacccu cagcagagan n

166 <210> SEQ ID NO: 6

167 <211> LENGTH: 21

168 <212> TYPE: RNA

169 <213> ORGANISM: Homo sapiens

172 <220> FEATURE:

173 <221> NAME/KEY: misc_feature

174 <222> LOCATION: (20)..(21)

175 <223> OTHER INFORMATION: any "N" is a (2'-deoxy)thymidine

177 <400> SEQUENCE: 6

W--> 178 ggccauccac uaugcugagn n

181 <210> SEQ ID NO: 7

182 <211> LENGTH: 21

183 <212> TYPE: RNA

184 <213> ORGANISM: Homo sapiens

187 <220> FEATURE:

188 <221> NAME/KEY: misc_feature

189 <222> LOCATION: (20)..(21)

190 <223> OTHER INFORMATION: Any "N" is a (2'-deoxy)thymidine

192 <400> SEQUENCE: 7

W--> 193 gagucguauc accuaccggn n

196 <210> SEQ ID NO: 8

197 <211> LENGTH: 745

198 <212> TYPE: PRT

199 <213> ORGANISM: Homo sapiens

201 <400> SEQUENCE: 8

203 Met Glu Arg Pro Pro Gly Leu Arg Pro Gly Ala Gly Gly Pro Trp Glu

204 1 5 10 15

207 Met Arg Glu Arg Leu Gly Thr Gly Gly Phe Gly Asn Val Cys Leu Tyr

208 20 25 30

211 Gln His Arg Glu Leu Asp Leu Lys Ile Ala Ile Lys Ser Cys Arg Leu

212 35 40 45

215 Glu Leu Ser Thr Lys Asn Arg Glu Arg Trp Cys His Glu Ile Gln Ile

216 50 55 60

219 Met Lys Lys Leu Asn His Ala Asn Val Val Lys Ala Cys Asp Val Pro

220 65 70 75 80

223 Glu Glu Leu Asn Ile Leu Ile His Asp Val Pro Leu Leu Ala Met Glu

224 85 90 95

227 Tyr Cys Ser Gly Gly Asp Leu Arg Lys Leu Leu Asn Lys Pro Glu Asn

228 100 105 110

231 Cys Cys Gly Leu Lys Glu Ser Gln Ile Leu Ser Leu Leu Ser Asp Ile

232 115 120 125

235 Gly Ser Gly Ile Arg Tyr Leu His Glu Asn Lys Ile Ile His Arg Asp

236 130 135 140

239 Leu Lys Pro Glu Asn Ile Val Leu Gln Asp Val Gly Gly Lys Ile Ile

240 145 150 155 160

RAW SEQUENCE LISTING

DATE: 08/04/2004

PATENT APPLICATION: US/10/730,614

TIME: 11:54:23

Input Set : A:\9_263 seq list 07.26.04.ST25.txt

Output Set: N:\CRF4\08042004\J730614.raw

```

243 His Lys Ile Ile Asp Leu Gly Tyr Ala Lys Asp Val Asp Gln Gly Ser
244                      165                      170                      175
247 Leu Cys Thr Ser Phe Val Gly Thr Leu Gln Tyr Leu Ala Pro Glu Leu
248                      180                      185                      190
251 Phe Glu Asn Lys Pro Tyr Thr Ala Thr Val Asp Tyr Trp Ser Phe Gly
252                      195                      200                      205
255 Thr Met Val Phe Glu Cys Ile Ala Gly Tyr Arg Pro Phe Leu His His
256                      210                      215                      220
259 Leu Gln Pro Phe Thr Trp His Glu Lys Ile Lys Lys Lys Asp Pro Lys
260 225                      230                      235                      240
263 Cys Ile Phe Ala Cys Glu Glu Met Ser Gly Glu Val Arg Phe Ser Ser
264                      245                      250                      255
267 His Leu Pro Gln Pro Asn Ser Leu Cys Ser Leu Ile Val Glu Pro Met
268                      260                      265                      270
271 Glu Asn Trp Leu Gln Leu Met Leu Asn Trp Asp Pro Gln Gln Arg Gly
272                      275                      280                      285
275 Gly Pro Val Asp Leu Thr Leu Lys Gln Pro Arg Cys Phe Val Leu Met
276                      290                      295                      300
279 Asp His Ile Leu Asn Leu Lys Ile Val His Ile Leu Asn Met Thr Ser
280 305                      310                      315                      320
283 Ala Lys Ile Ile Ser Phe Leu Leu Pro Pro Asp Glu Ser Leu His Ser
284                      325                      330                      335
287 Leu Gln Ser Arg Ile Glu Arg Glu Thr Gly Ile Asn Thr Gly Ser Gln
288                      340                      345                      350
291 Glu Leu Leu Ser Glu Thr Gly Ile Ser Leu Asp Pro Arg Lys Pro Ala
292                      355                      360                      365
295 Ser Gln Cys Val Leu Asp Gly Val Arg Gly Cys Asp Ser Tyr Met Val
296                      370                      375                      380
299 Tyr Leu Phe Asp Lys Ser Lys Thr Val Tyr Glu Gly Pro Phe Ala Ser
300 385                      390                      395                      400
303 Arg Ser Leu Ser Asp Cys Val Asn Tyr Ile Val Gln Asp Ser Lys Ile
304                      405                      410                      415
307 Gln Leu Pro Ile Ile Gln Leu Arg Lys Val Trp Ala Glu Ala Val His
308                      420                      425                      430
311 Tyr Val Ser Gly Leu Lys Glu Asp Tyr Ser Arg Leu Phe Gln Gly Gln
312                      435                      440                      445
315 Arg Ala Ala Met Leu Ser Leu Leu Arg Tyr Asn Ala Asn Leu Thr Lys
316                      450                      455                      460
319 Met Lys Asn Thr Leu Ile Ser Ala Ser Gln Gln Leu Lys Ala Lys Leu
320 465                      470                      475                      480
323 Glu Phe Phe His Lys Ser Ile Gln Leu Asp Leu Glu Arg Tyr Ser Glu
324                      485                      490                      495
327 Gln Met Thr Tyr Gly Ile Ser Ser Glu Lys Met Leu Lys Ala Trp Lys
328                      500                      505                      510
331 Glu Met Glu Glu Lys Ala Ile His Tyr Ala Glu Val Gly Val Ile Gly
332                      515                      520                      525
335 Tyr Leu Glu Asp Gln Ile Met Ser Leu His Ala Glu Ile Met Glu Leu
336                      530                      535                      540
339 Gln Lys Ser Pro Tyr Gly Arg Arg Gln Gly Asp Leu Met Glu Ser Leu

```

RAW SEQUENCE LISTING

DATE: 08/04/2004

PATENT APPLICATION: US/10/730,614

TIME: 11:54:23

Input Set : A:\9_263 seq list 07.26.04.ST25.txt

Output Set: N:\CRF4\08042004\J730614.raw

```

340 545          550          555          560
343 Glu Gln Arg Ala Ile Asp Leu Tyr Lys Gln Leu Lys His Arg Pro Ser
344          565          570          575
347 Asp His Ser Tyr Ser Asp Ser Thr Glu Met Val Lys Ile Ile Val His
348          580          585          590
351 Thr Val Gln Ser Gln Asp Arg Val Leu Lys Glu Leu Phe Gly His Leu
352          595          600          605
355 Ser Lys Leu Leu Gly Cys Lys Gln Lys Ile Ile Asp Leu Leu Pro Lys
356          610          615          620
359 Val Glu Val Ala Leu Ser Asn Ile Lys Glu Ala Asp Asn Thr Val Met
360 625          630          635          640
363 Phe Met Gln Gly Lys Arg Gln Lys Glu Ile Trp His Leu Leu Lys Ile
364          645          650          655
367 Ala Cys Thr Gln Ser Ser Ala Arg Ser Leu Val Gly Ser Ser Leu Glu
368          660          665          670
371 Gly Ala Val Thr Pro Gln Thr Ser Ala Trp Leu Pro Pro Thr Ser Ala
372          675          680          685
375 Glu His Asp His Ser Leu Ser Cys Val Val Thr Pro Gln Asp Gly Glu
376          690          695          700
379 Thr Ser Ala Gln Met Ile Glu Glu Asn Leu Asn Cys Leu Gly His Leu
380 705          710          715          720
383 Ser Thr Ile Ile His Glu Ala Asn Glu Glu Gln Gly Asn Ser Met Met
384          725          730          735
387 Asn Leu Asp Trp Ser Trp Leu Thr Glu
388          740          745
391 <210> SEQ ID NO: 9
392 <211> LENGTH: 24
393 <212> TYPE: DNA
394 <213> ORGANISM: Homo sapiens
396 <400> SEQUENCE: 9
397 gcacagagat ggtgaaaatc attg 24
400 <210> SEQ ID NO: 10
401 <211> LENGTH: 24
402 <212> TYPE: DNA
403 <213> ORGANISM: Homo sapiens
405 <400> SEQUENCE: 10
406 caacttgctc aaatgaccaa acag 24
409 <210> SEQ ID NO: 11
410 <211> LENGTH: 24
411 <212> TYPE: DNA
412 <213> ORGANISM: Homo sapiens
414 <400> SEQUENCE: 11
415 tgagcacacg gtcctgactc tgca 24

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/730,614

DATE: 08/04/2004
TIME: 11:54:24

Input Set : A:\9_263 seq list 07.26.04.ST25.txt
Output Set: N:\CRF4\08042004\J730614.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; N Pos. 20, 21
Seq#:3; N Pos. 20, 21
Seq#:4; N Pos. 20, 21
Seq#:5; N Pos. 20, 21
Seq#:6; N Pos. 20, 21
Seq#:7; N Pos. 20, 21

VERIFICATION SUMMARY

DATE: 08/04/2004

PATENT APPLICATION: US/10/730,614

TIME: 11:54:24

Input Set : A:\9_263 seq list 07.26.04.ST25.txt

Output Set: N:\CRF4\08042004\J730614.raw

L:118 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:133 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:148 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:163 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:178 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0